

CoinUP-4UP/6UP! (v1.0) users manual



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Overview!

Like its little brother, the CoinUp 4UP/6UP device is designed to give freeplay capability to various arcade games that don't support native freeplay. It does this by monitoring buttons that exist on your game and sending coin pulses to the arcade pcb at the right times. However, unlike previous CoinUp versions, the Coinup 4UP/6UP is designed to also work with games that don't feature player 'Start' buttons. How you would hook up the CoinUp to your game depends on the type of game you have, so let's consider the two most basic types:

1) Games Without Start Buttons:

Some multiplayer games were designed without designated player start buttons. Many Konami 4-player games like X-Mem, Simpsons, etc. fall into this category. For these games, each player or character gets their own dedicated coin slot and when that coin slot is activated that character is in-play.

In this case the CoinUp monitors the player's attack button. If the game is idle and an attack button is pressed, the CoinUp will insert a credit for that character and start the game. It then goes into a 'sleep' mode where it simply sits idle and continuously monitors that player's attack button. So long as that attack button is getting some use the CoinUp will assume that character is still in-play and will not add any additional credits to the game. However, once a period of time elapses where the button is idle (referred to as the **idle time**), the CoinUp will assume that that player has stopped playing and it will go back to its initial state. This time is configurable and can be adjusted according to the game to account for cut-scene duration, "insert coin to continue" timeouts, etc.

2) Games With Start Buttons:

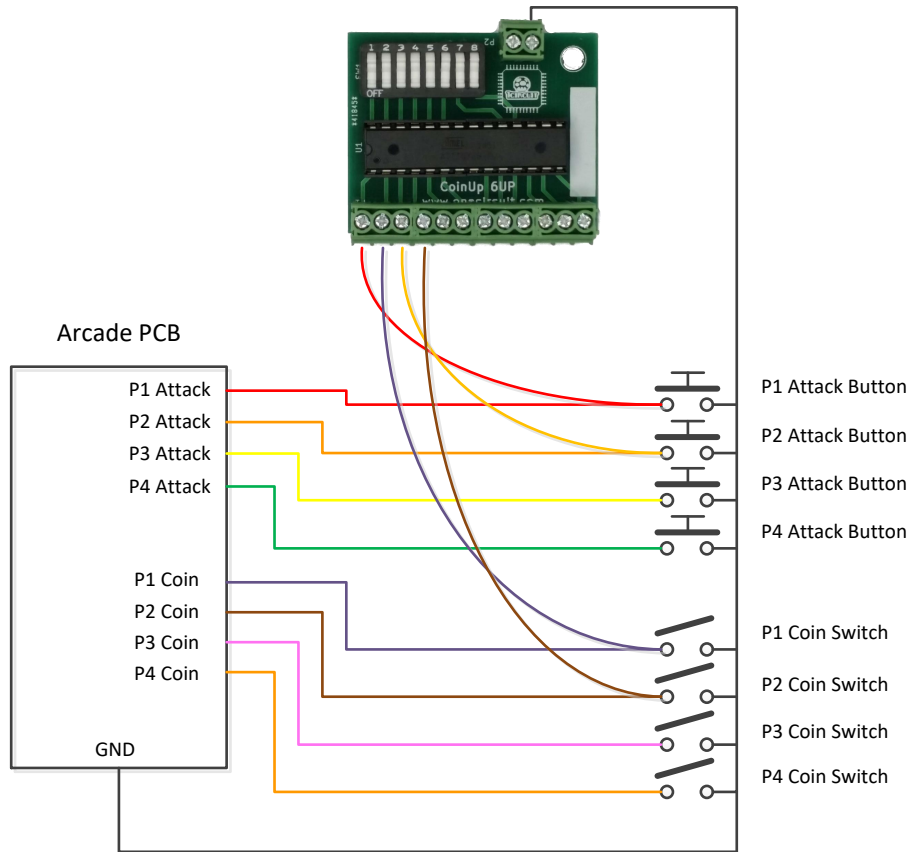
For games with dedicated start buttons the CoinUp 4UP/6UP would work just as the previous CoinUp versions did in that it would monitor a character's start button and after it was pressed, would add credits to the game. In this case the **idle time** setting used above wouldn't really be needed and can be set to its minimal value.

Installation!

The best location to install the device is towards the front of the cabinet where you have easy access to all of the coin door and player button wiring. However, if you wish to attach the device inside the cabinet in a specific location, you can just use additional wire and connectors (small wire-nuts, butt connectors, etc) to extend the wires wherever you need them.

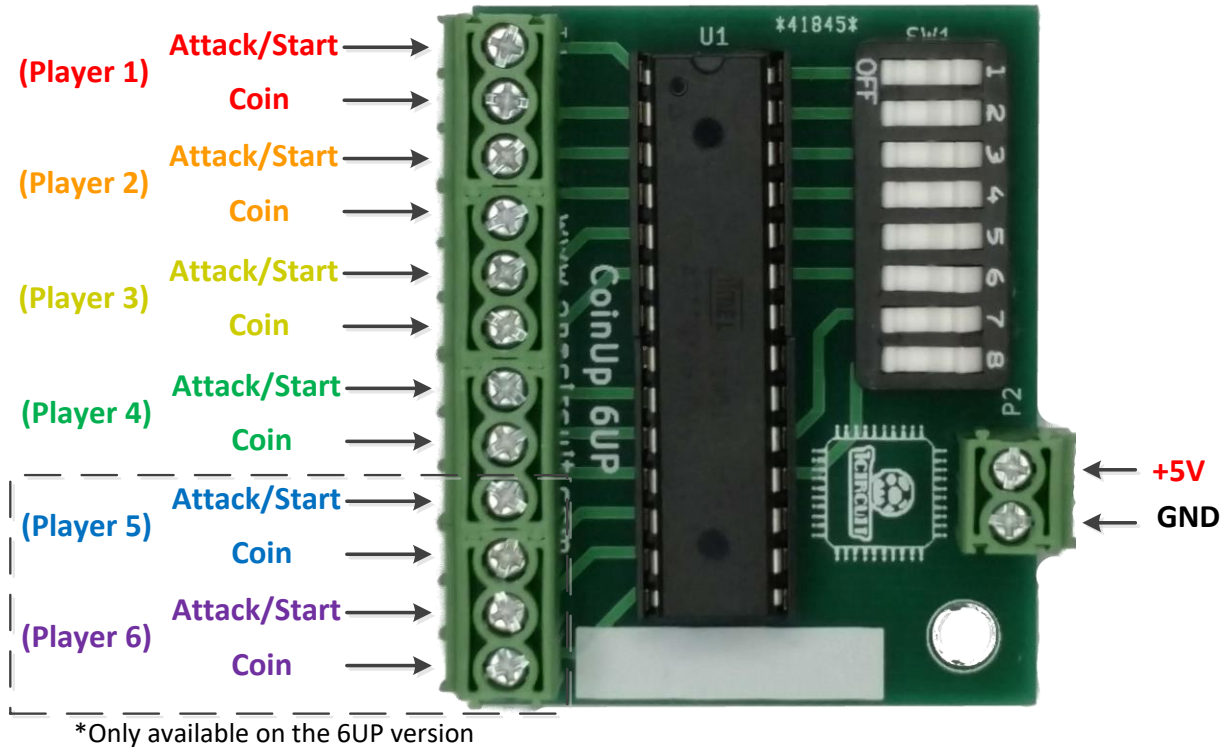
Note that the device is designed to get its power from the pull-ups located on the game PCB that are connected to the player button and coin signals. If these pull-up resistors are strong enough, there is no need to connect the +5V terminal to the +5V power supply that powers your game. However, if you notice any erratic behavior from the CoinUp once installed (not working, random credits, etc) you may want to consider connecting the +5V terminal as this may be an indicator that the pull-ups may not be strong enough.

Here's a typical installation for a game without dedicated start buttons:
(Note only 2 players' connections are shown... simply repeat for all other players)



For games with start buttons, you would simply connect the CoinUp to the start buttons rather than the attack buttons.

Device Pinout!



Features!

Credit Selection - The CoinUp-4UP/6UP allows the user to select the # of credits to send the game when the player's button is pressed. Setting this value low will make the experience more challenging for the player. The game will start with only a small handful of credits and it's up to the player to see just how far they can get! Alternatively, for home use you may want to set this to a larger value. This coupled with the in-game credit multiplier that exists in most Konami type games will give younger kids a seemingly unlimited # of credits and will allow them to play the game to the end.

Join In Play - Note that each player's inputs are monitored independently within the CoinUp. This means players can join in and out of games as they please.

Configurable Idle Time - For games without start buttons, the CoinUp allows the user to configure the idle time that needs to lapse without a player's attack button being pressed before it goes back into its initial mode of waiting for the button to be pressed before inserting credits. You will most likely want to

set this to be slightly larger than the amount of time the game takes to show its longest cut-scene, display the “insert credits to continue...” countdown timer etc. This way the player won’t be able to add any additional credits once his game has started.

***NOTE:** Keep in mind that once a player has started playing, any tap of that player’s attack button will reset the internal timer that is measuring the idle time. So for example if the idle time is set to say 20 seconds, that person’s game is over, the “insert credits to continue...” countdown timer has reached 1 second and the player hits the attack button... even though the countdown timer will reach 0 one second later the user will now have to wait another 19 seconds **without pressing the attack button** before the CoinUp will allow the user to credit up that character again.

For games with start buttons you can choose the minimal setting as this will allow the player to opt back into a game once it’s over.

Autostart – The original CoinUp featured an auto-start ability in which the CoinUp would insert a coin and then press player start button for you, thus starting the game. Some users may not want this as it may jump over an initial cut-scene or player configuration screen. Disabling the autostart feature allows the player to start the game when they are ready.

DIP Switch Usage!

	1	2	3	4	5	6	7	8
Credits								
1	ON	ON	ON	ON				
2	ON	ON	ON	OFF				
3	ON	ON	OFF	ON				
4	ON	ON	OFF	OFF				
5	ON	OFF	ON	ON				
6	ON	OFF	ON	OFF				
7	ON	OFF	OFF	ON				
8	ON	OFF	OFF	OFF				
9	OFF	ON	ON	ON				
10	OFF	ON	ON	OFF				
11	OFF	ON	OFF	ON				
12	OFF	ON	OFF	OFF				
13	OFF	OFF	ON	ON				
14	OFF	OFF	ON	OFF				
15	OFF	OFF	OFF	ON				
16	OFF	OFF	OFF	OFF				
Idle Time								
20 sec					ON	ON	ON	
25 sec					ON	ON	OFF	
30 sec					ON	OFF	ON	
35 sec					ON	OFF	OFF	
40 sec					OFF	ON	ON	
45 sec					OFF	ON	OFF	
50 sec					OFF	OFF	ON	
55 sec					OFF	OFF	OFF	
Autostart								
Disable Auto Start								ON
Enable Auto Start								OFF